



Valuable Romanian contributions in the field of esophageal surgery

Silviu Constantinoiu, Florin Achim

General and Esophageal Surgery Clinic, Center of Excellence in Esophageal Surgery, Sfânta Maria Clinical Hospital, "Carol Davila" University of Medicine and Pharmacy, Bucharest

At Professor Eugen Târcoveanu's generous request to write an editorial about Romanian, but also worldwide, esophageal surgery, I wondered what exactly made him make such a proposal to me.

Looking for explanations and probably taking into account that from 1991 I was permanently in the management of the Romanian Surgical Society (country secretary, president for 8 years of the Bucharest branch - the most numerous, vice-president of SRC, president of SRC for 4 years, editor-in-chief and Honorary Editor of the flagship magazine "Surgery"), I think it would not have been enough to be entitled to prepare such a work.

While I was a surgical intern between 1976-1979 at a great surgeon and professor at the "23 August" Hospital (currently "St. Pantelimon"), I noticed that Professor Pavel Simici had a lot of experience in digestive surgery but also in urological surgery (working for years days at the "Panduri" Hospital with academician Theodor Burghel); when he had a patient with esophageal pathology, he sent him to another great surgeon of the time, with great experience in this field, professor Dan Gavrilu, but he also referred patients with retroperitoneal tumors to the "23 August" Hospital.

Debuting as a Assistant Professor in the "Carol Davila" UMF in 1980, I set out to approach, in addition to the usual digestive surgery, both fields, especially since at the "Grivita" Hospital (currently "Sf. Maria"), where I obtained the position, head of the clinic, Dr. Ion Anghel, a close disciple of Professor Dan Gavrilu, was a Lecturer, on which occasion I made my debut in this very difficult field of general surgery.

The history of medicine is related to the evolution of human society, from ancient times to the present, as well as the evolution of understanding of the anatomy and physiology of the human body and technological progress in general [3]. Of course, the history of surgery (and, in particular, esophageal surgery) cannot be an exception.

If in the developed West, but also in the Far East (Japan, China) thoracic surgeons were the ones who took care of this kind of surgery, here the situation was, from this point of view, different.

In Romania, thoracic surgery developed in TB sanatoriums (Moroieni, Dobrița, etc.), thoracic surgeons dealt mainly with pleuro-pulmonary tuberculosis surgery. If there were thoracic surgeons who performed esophageal surgery, they usually came from general surgeons (professor general Traian Oancea, general (r) prof. dr. Teodor Horvat, col. (r) prof. dr. Ioan Cordoș).

One of the promoters of esophageal surgery in our country was general **Dr. IACOB POTÂRCA** (1866–1942).

Corresponding author: Silviu Constantinoiu email: constantinoiu.silviu@gmail.com

Received: October 19, 20224; **Accepted** November 15, 2024; **Published:** December 30, 2024

Citation: Constantinoiu S., Achim FI. Valuable Romanian contributions in the field of esophageal surgery. Journal of Surgery [Jurnalul de chirurgie]. 2024; 20(4): 270– 279. DOI:10.7438/JSURG.2024.04.01

Copyright: © 2024 Silviu Constantinoiu et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited



Figure 1. General Dr. Iacob Potârca

He, after campaigning in Bulgaria in 1913 during the Balkan War and then in 1916-1918 during the First World War, in 1924-1928 was the head of the Army Sanitary Service, developing real scientific centers in the country made up of military doctors and perfecting the "Military Health Magazine" which it raises to the value of those in the country and abroad.

He described and practiced the approach to the esophagus via the posterior, extrapleural route, and Professor Dan Setlacec, in his excellent monograph "Romanian Medicine - European Medicine" [8] mentions the gender. Iacob Potârca who had published in 1895 the results of experiments with metal prostheses, for fractures, inserted periosteally, the osteosynthesis of clavicle fractures and the results of using the Murphy button for intestinal sutures.

Moreover, intestinal sutures had been the subject of concerns of several surgeons of the time: George Assaki, Thoma Ionescu, Ernest Juvara, etc. (button suture or manual suture in continuity or with separate threads, side sutures or end -to- end) [9].

AMZA JIANU (1881–1962). Born in 1881 in Fălcoi commune in Romanați county, he studied high school in Craiova and university in Bucharest. It is external and internal by competition of the Eforie Civil Hospitals from Bucharest. As an intern, he has the privilege of being selected by Professor Thoma Ionescu, the father of the Romanian school of surgery, who includes him among his collaborators. The young

assistant is quickly noticed, especially through his concerns about experimental surgery [11]. As early as 1908 (at the age of 27) Amza Jianu became one of the forerunners of experimental surgery in our country.

Among the results of the experimental studies, he carried out, we mention: "Disparition de la graisse des capsules surrenales apres fistules pancreatiques chez les chiens", in collaboration with I. Bruckner: C.R. Shock. Biol. (Paris) May 1908; "Stomach digestion of fats (cutaneous duodenogastric fistula)" in collaboration with J. Grosman (Revista de Chirurgie, 1908). Taking note of Pavlov's works, he is the first to create the "small stomach" in Romania, to which he adds an ingenious modification: he sutures the mucosa of the two gastric pouches separately, interposing a muscle layer between them (Tehnica fistulei Pavlov, Revista de Chirurgie, 1908, No. 7). It thus avoids fistulas between the "small stomach" and the stomach itself, a complication frequently encountered in the standard version of the procedure and which led to "pollution" of the results.



Figure 2. Amza Jianu

In 1909 he initiates research on dogs on a new method of anesthesia, spinal anesthesia with strychnostovaine (0.04 cg stovaine plus 0.25 mg strychnine), presented at the II International Congress of Surgery (Brussels 1908) and later used in surgery craniocerebral, facial surgery, neck surgery, upper limb surgery and thoracic surgery. At an international level, the method was promoted by his master, Professor Thoma

Ionescu, and was very successful in the era. In 1910, he studied experimentally, in collaboration with J. Grosman, the lesions of the pyloric mucosa, after the exclusion of the pylorus, reaching the conclusion that the operation is "rational" when the ulcer cannot be resected.

Amza Jianu was launched very early on a spectacular academic and professional trajectory, being appointed professor of surgery in 1912, at only 31 years old, at the Saint Spiridon Hospital in Iasi, where he headed one of the two surgery clinics (the second being led by Ernest Juvara). Here he will have as a student the one who will continue to succeed him in other positions and who will be his worthy successor, the future teacher Nicolae Hortolomei. From the position of professor and founder of a surgery school in the capital of Moldova, Amza Jianu begins a prodigious career. Introduces asepsis and antisepsis, being the first surgeon to operate with a mask, rubber gloves, cap and sterile gown. In 1912, he successfully performed the first ablation of a ponto-cerebellar angle tumor in a patient who had been diagnosed by prof. BUT. Parson. This case was included in a study published by Harvey Cushing on these tumors. He imagines a method by which he raises the osteocutaneous flap to ossification, by means of two long silver wires ("Decompressive craniectomy" Dtsch. Z. Chir., 1910, vol. 107), then entered by Stopatto among the classic operations (Dtsch. Z. Chir., 1912, vol. 122, p. 229).

Introduces an original procedure for treating facial paralysis by transplanting a beam from the masseter muscle to the orbicularis oculi (Lexer-Jianu procedure). Later, at the surgery congress of 1934, he will communicate the myoplasty with sternocleidomastoid flap for the treatment of facial paralysis. As such, it can be considered one of the forerunners of plastic and reparative surgery in Romania.

He describes his procedure of prethoracic esophagoplasty with a gastric tube from the greater curvature of the stomach "Gastrostomie und Oesophagoplastie" (Dtsch. Z. Chir, 1912, vol. 118).

In 1920, he moved to Bucharest, where he first became head of the Clinic for Urinary

Tract Diseases at the Colțea Hospital. In this capacity he publishes a series of original operations and elevates urology to the rank of major surgery. To avoid haemorrhage after pyelonephrotomy in the treatment of urolithiasis, he recommends suture with "U" threads. He was concerned with the various forms of reno-urinary lithiasis, together with Gh. Marinescu. In 1927, together with Th. Firică, an experience accumulated over 10 years in the treatment of prostate adenoma, with 164 prostatectomies performed in two stages, the mortality being 4.2% in the first stage and 4.3% in the second stage. Together with Gh. Marinescu publishes a case of prostate adenofibroma in a 16-year-old child (1929). In 1930, he was appointed professor of the Surgical Clinic at the Colțea Hospital, a position that would later be occupied by Nicolae Hortolomei.

In 1934 he moved to Filantropia Hospital, where he organized the most modern surgical clinic of the time, participating in the construction of this clinic from the construction phase. The new unit is named Clinical-Chirurgical Institute III "Prof. Dr. Thoma Ionescu". The clinic was equipped with three large operating rooms, an electrotherapy department, radiology, radium therapy, an anatomopathology and medical analysis laboratory, a library, an amphitheater and a very rich and varied museum of surgical pieces, unique in Romania at that time. When it was ready, the clinic had all the modern amenities, from microscopes to the rarest surgical instruments. A special ward with a post-operative service function is established (thus ensuring the supervision of recently operated patients before being moved to the ward). Amza Jianu worked in the clinic from Philanthropy until his retirement (1949). During the 29 years in Bucharest, he carried out a prodigious activity in numerous fields of surgery.

He continues his concerns in neurosurgery. In this sense, he collaborates with the great neurologists of the time (Gheorghe Marinescu, Dem Paulian, State Drăgănescu), perfecting himself in cranio-cerebral and vertebro-medullary surgery. In 1929, together with Gh. Marinescu and Dem Paulian three

observations of pontocerebellar tumors, and in 1931 an observation of a supratentorial tumor, all operated on successfully. Also in 1931, Amza Jianu communicated his observations on spinal cord tumors and arachnoiditis. At the 1939 Congress of Surgery, Amza Jianu reports 40 cases of operated medullary tumors (the largest experience at that time) and states that the indication for surgery must be early, but late interventions can sometimes be followed by success. At the same congress, Th. Firić analyzes the statistics of cases with spinal cord compression due to fractures and tumors, including the experience of Amza Jianu with 31 fractures, of which 6% with compression. Since 1930, Amza Jianu has been performing operations for spina bifida. He covered cranial nerve surgery and especially retrogasserian neurectomy. Amza Jianu can be considered one of the founders of neurosurgery in Romania, especially because he trained D. Bagdasar, I. Moruzzi, who will become neurosurgeon specialists.

He was interested, due to the proximity to the Cardiology Clinic, in the surgical treatment of heart diseases and is counted (along with I. Jianu, Th. Firić and N. Hortolomei) among those who practiced the Bauer operation (resection of the chondro-costal plastron at the level of the ribs III–V) recommended by Basil Teodorescu in the treatment of heart failure, at a time when thoracic surgery did not yet exist.

A major concern with numerous and important contributions was orthopedics. He was particularly interested in femoral neck fracture surgery. He is the first to introduce the Smith Petersen nail in Romania in their treatment. Together with Th. Firić presented the report at the 9th National Congress of Surgery ("Smith Petersen's nail in femoral neck fractures", Bucharest 1938). He built an original device for nail orientation (*Revista de Chirurgie*, 1939, no. 9–10), which he performed under radiological control. Also, in the field of orthopedic traumatology, he was also concerned with the Kuntscher method in long bone fractures. He published studies on bone tumors with

myeloplasties with arthroplastic resection of the knee (1959).

He is among the first surgeons in Romania who practice total gastrectomy for cancer. In intestinal tuberculosis surgery he practiced resections and diversions. He also published papers on terminal ileitis.

Starting from 1930, he published works on colon cancer surgery. He approached rectal cancer with the Kraske – Hocheneg (transsacral) technique and criticized the perineal approach to rectal cancer, which he considered insufficient. That is why he prefers abdomino-perineal resection (rectal amputation) with definitive colostomy, a method he supports at the 1935 surgery congress.

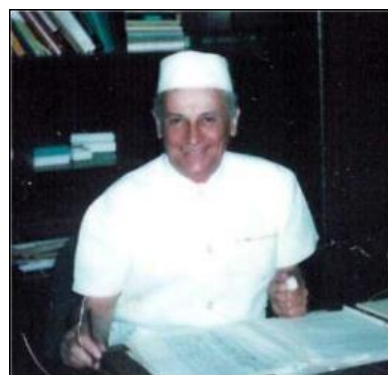


Figure 3. Professor Dan Gavrilu (1915–2012)

Finally, **Professor Dr. Dan Gavrilu**, the best-known Romanian surgeon abroad after the war for his revolutionary procedure of reconstructing the esophagus with an anisoperistaltic tube from the great gastric curvature, deserves a detailed presentation of his achievements.

Professor Dan Gavrilu was born in Brăila on April 26, 1915, his mother being a French and English teacher, and his father a physics-chemistry teacher, thus benefiting from a well-chosen education at an early age, speaking French, English and German fluently. He loved sports (he successfully practiced shooting, fencing, skiing, tennis and swimming, even being a regional champion), playing tennis into his old age. After graduating from the high school "I.C.

Brătianu" from Pitesti, his father would have wanted him to be a diplomat, but he chose medicine, graduating from the Faculty of Medicine in Bucharest in 1941, with magna cum laude.

It became external and internal through a competition at Eforiei Civile Hospitals. In the middle of the war, in 1943, on a leave from the front (he had reached the Caucasus), he succeeded first in the secondary exam in the Philanthropy Clinic led by professor Amza Jianu. He specialized as a secondary in Germany and in Vienna (in Austria) in the clinic of the famous Finsterer. In 1944, he became a university assistant through a competition, with the highest score, and in 1947, the youngest primary surgeon in Romania.

Surgical celebrity was brought to him by the surgical procedures of esophageal reconstruction with anisoperistaltic gastric tube made from the greater gastric curvature. The procedure starts from the Beck-Jianu gastrostomy technique, through a probe inserted into a tube made from the great gastric curvature.

Amza Jianu's procedure consisted in making an anisoperistaltic tube from the greater curvature, vascularized by the left gastroepiploic artery and bringing it to the cervical region under the presternal skin; only this tube did not reach the neck and it was necessary to attach a tube made of leather (Bircher procedure) which often fistulized multiple times. After 25 interventions performed on the corpse in the Pathological Anatomy Service at the Floreasca Emergency Hospital, led by dr. Leonida Georgescu, Gavriliu makes essential changes to Amza Jianu's procedure: he performs the splenectomy in the hilum and thus the splenic artery practically becomes the feeding artery of the neoesophagus through the left gastroepiploic artery and detaches the tail and body of the pancreas to the aorta, the graft reaching the neck entirely, via the presternal route (Gavriliu).

In 1951, when he first performed this procedure on a patient, he published it in the Medical Science Review magazine (no. 6, 1951, year III, p. 33) together with Dr. Leonida Georgescu.

Later, in order to benefit from a longer graft, in order to anastomose with the pharynx, prof. Gavriliu envisions the Gavriliu II procedure (in which the gastric tube also includes the pylorus and the duodenum I, digestive continuity being restored by gastroduodenal anastomosis, taking DI up to the cervical region. For high latero-lateral anastomoses, Gavriliu and Petrov proposed hemihyoidectomy with periosteum and opening of the pharynx in the bed of the hyoid bone, transhyglottic, with maintenance of the hypoglossal nerve on the respective side (in Jean Patel and Lucien Leger - R. Devin, J. Lataste, P. Maillet - "Les esophagoplasties", Publisher Masson, Paris, 1968, p. 128).

As Professor Vasile Sârbu rightly wrote: "Prof. Dan Gavriliu was so deeply attached to his procedure that he never detached himself from it and even if he wrote a lot on other topics such as: gastric cancer, peptic esophagitis, gastric ulcer, difficult abutment, etc., all these seem to -they broke up with the author. Dan Gavriliu was "stolen" from reality by his own procedure, the first esophagoplasty, the pioneering operation".

Other surgical procedures imagined by prof. Gavriliu are: gastrostomy with peritoneal collar, mentioned in all surgical treatises, vagotomy with extramucosal hemipylorotomy, techniques to restore the sensation of continence after rectal resection, a procedure that eliminates loop syndrome after the surgical treatment of duodenal ulcer with difficult stump.

Apart from esophageal surgery, prof. Gavriliu also approached other fields, having other original ideas and techniques.

- in 1953, the Faculty of Medicine "Carol Davila" Bucharest assigns him the title of head of works;
- in the fall of 1968 he became a university lecturer and head of the Surgery Clinic of the "Carol Davila" Hospital;
- in 1971, associate doctor and delegated professor, and in 1973, he received the degree of university professor through a competition;
- as prof. Serbian, Dan Gavriliu had a legendary aura even during his lifetime, due to his special personality and extremely full and turbulent life, an example being the articles in Flacăra magazine: "Without being a professor, the

greatest esophageal surgeon in the world lives at Bucharest" - in *Flacăra* no. 16(984) April 13, 1974, "Battle for blood vessels" - in *Store* no. 889/19 October 1974;

- in 1973, he became a founding member of the International College of Digestive Surgery, and in 1975 he was appointed surgeon no. 1 of the world (the World Yearbook of Surgery under the auspices of the Royal College of Surgeons), participates in the awarding ceremony in Great Britain in the famous robe of Lord Moynihan;

- in 1976, in Davos and in 1979 in San Francisco, he was elected vice-president of the Annual Congress of Surgery, being chairman of numerous international congresses, of which in 1976, in Leeds, he was invited to open the annual Congress of the Royal College of Surgery in England;

- also in 1976, he is declared "emeritas member" of the Surgeons International Society in Hamburg;

- between 1973 and 1978 he was a professor at the "Carol Davila" Hospital, and from 1978 he became a professor and head of the Surgery II SUUB clinic;

- lectured on all continents, in large surgical centers, for example as a visiting professor at Mayo in Minnesota, New York, San Francisco, Philadelphia, London, Leeds or performing surgical demonstrations in Moscow, Paris, Rome, Vienna, Trieste, Amsterdam, Madrid, Toronto, Bahia Blanca, Jerusalem or San Francisco;

- all those who witnessed his demonstrations, abroad or in the country, had only words of praise, many of them leaving their thoughts full of admiration in the honor book of the Surgery Clinic where he worked;

- professors of surgery from all over the world traveled to Bucharest to see him live operating on this "sacred monster" of Romanian surgery, among them, H. Ellis from Westminster Hospital in London, N. Maillard from Paris, Puig De Calle from Barcelona, Ev. Oglov from Leningrad, Rene Megevard from Geneva, Carlos Roberto from Buenos Aires, Jean Luis Lortat-Jacob and the Pope's surgeon Pietro Valdoni;

- was an honorary member of the Pan American Association of International Exchanges in Medical Training;

- member of the French Academy of Surgery;
- in 1991, emeritus member of the Romanian Academy of Medical Sciences and Knight of Merit of the Italian Republic, having special merits in the improvement of Italian surgeons - Giorgio Monaco, Licigno Angeli, Federico Francconi;

- quoted in world literature in *L'Encyclopedie medico-chirurgicale*;

- author of chapters in 10 major surgical treatises: 1. "The Craft of Surgery", 1st edition 1964, Philip Cooper, New York, 2nd edition 1971 (vol. I, p. 454);

2. "Nouveau traits of surgical techniques", Devin, Lataste, Maillet, Ed. Masson et Cie, Paris, 1968, T10, p 113;

3. "Chirurgia delli stenosi cicatriziali dell' esofago", Gianfranco Fegiz, Luigi Gioffre, Picin Editore, Padua, 1971, p. 253;

4. "Treaty of surgical technique", vol. V/1, Padua, 1971, p. 253;

5. "Surgery of the Esophagus", Ed. Livingstone - Churchill, New York, Edinburgh, London, Melbourne, 1988;

6. "Colour Atlas of Gastrointestinal Surgery", C. Cardiano, G.I. Nardi, Picci Ed. Padua, 1989;

7. "Surgery of the Upper Gastrointestinal tract", G.G. Jamieson, H.T. Debas, Ed. Capman and Hall Medical, New York, London, Glasgow, 1994;

8. "Atlas Grudnoi Hirurghii" (edited by B.V. Petrovskovo), Moscow, Leningrad, 1974;

9. "Cancers de l'oesophage et du cardia", Ed. Ellipses, Paris, 1995;

10. "Aspects of oesophageal surgery", United States, 1975;

11. D. Gavriliu. Surgery of the Esophagus. Ed. Churchill Livingstone. New York, Edinburgh, London, Melbourne 1988;

12. D. Gavriliu in Jamieson G. G., HT Debas. Ed. Copman and Hall Medicall, New York, London, Glasgow, 1994;

- had moments of difficulty, sometimes generated by colleagues from the country, sometimes by impostors from abroad. He overcame these difficult moments with serenity. An example was when Henry Heimlich from the USA he filmed moments from the "Gavriliu operations" that he had witnessed and then, taking advantage of the

lack of unified international information, which a modern internet would have easily combated, he presented them in 1960, without mentioning their authorship. In the end, the truth was recognized and the merits of Prof. Dan Gavrilu clearly mentioned internationally;

- he published a lot in the country, articles and specialized books - which have become true symbols in the field. Among the professor's reference works we mention "Surgery of the esophagus", Bucharest, 1957 (fig. 11), "Pathology of the esophagus", Bucharest, 1974, "Diseases of the esophagus", Bucharest, 1964, "Medico-surgical emergencies", vol. I-II, Bucharest, 1950–1954, "Detection and diagnosis in cancer", edited by O. Costăchel, Bucharest, 1973;
- was the author or interlocutor in 7 televised documentaries on medical topics and also published a volume of autobiographical memories after a life with almost 50,000 surgical interventions, of which over 6,500 only in the field of esophageal surgery;
- after retirement he continued teaching at other universities – Unex-Az, Faculty of Medicine of the Ecological University (1992–1995);



Figure 4. Dan Gavrilu – „Chirurgia esofagului”, Bucharest, 1957.

- from 1996 consultant professor at UMF "Carol Davila" Bucharest, continuing the surgical activity within SUUB, his 9th decade of life being full of achievements in this field. His sports mentality and education kept him as a man full of energy even in old age, a performance athlete;

- his surgical activity resulted in numerous patents - methods and instruments for replacing the oesophagus in humans (1968):

- the surgical kit for the operation to replace the oesophagus in humans with a gastric tube (1968);
- catheter kit for sphincter-papillotomy (1972);
- surgical treatment of duodenal ulcer with difficult duodenal stump (1987);
- surgical procedure for the removal of afferent loop syndrome (1987);
- the professor was dominated by big plans - think big - he wanted to create in Bucharest a methodological center for the training of surgeons from all over the world.

He left us on November 4, 2012, revered by so many Romanian surgeons whom he trained and who had the chance to be with him, as Prof. Vasile Sârbu so eloquently said: "offering an original solution, Professor Gavrilu occupied for a for half a century the pontifical chair in oesophageal surgery, his name shining in the great surgical centers of Japan, Europe, the U.S.A., etc., practically all over the world."

ZENO POPOVICI (1933–2018). He was born in Resita on 14.02.1933. His father, Dr. Ioan Popovici was for 20 years the director and surgeon of the Central Case Hospital in Resita [15].



Figure 5. Professor Dr. Zeno Popovici

He attended the "Carol Davila" Faculty of Medicine in Bucharest, which he graduated in 1958, being a competitive intern (1959) and then a specialist (1962) and primary surgeon (1969) at the Floreasca Emergency Hospital in Bucharest, during 20 years as head of works (1975), having the degree of Doctor of Medical Sciences in 1969.

Forced by the communist regime, because he was not a party member, he was forced to move to Sibiu. Here he became (1986) head of the Surgery Clinic I - General Surgery and Thoracic Surgery. Later, in 1995, he became a University Professor at the "Victor Papilian" Faculty of Medicine, "Lucian Blaga" University in Sibiu.

As Zeno Popovici himself testifies in his autobiographical novel "From Reșita Romană to Tokyo", the most important chance he benefited from was the I.S.D.E. Scholarship. (International Society for Diseases of the Esophagus) of Japan in 1988 of \$10,000. Here under the guidance of Prof. Teruo Kakegawa at Kurume High School of Medicine studied oesophageal surgery, microsurgery, and oesophageal lymphodissection.

In the following years he was invited to give lectures in England, making a tour of England from Manchester-Birmingham-Edinburgh-Glasgow to Dundee which was the final point (7–21 November 1991).

Two other fellowships followed in Vienna specializing in microsurgery and Lyon under the leadership of Prof. Lombard-Plated, specializing in Digestive Emergency Surgery, from the French Association of Surgery.

In 1991 through the involvement of Acad. Prof. Zeno Popovici the British Congress "Overseas" was held in Sibiu. On this occasion he met Prof. Dr. Alfred Cuschieri, Sir Prof. Miles Irving and Dr. John Bancewicz. At that time, Dr. Alfred Cuschieri co-opted Acad. Prof. Zeno Popovici to write the chapter "Pharyngealoesophageal reconstruction with laryngeal preservation following severe caustic injury to the pharynx and oesophagus" within the monograph "Surgery of Oesophagus". As a result of the recognition of his quality as an expert in pharyngo-oesophageal surgery, in 1996 he was invited to the University of Southern California (USC) by Prof. Tom R. DeMeester to hold a conference on this topic. At that time he was awarded the title of world expert in pharyngeal surgery and became a member of the New York Academy of Sciences.

Also in 1996, he became a member of the Romanian Academy of Medical Sciences. In

1999 he became a member of the National Academy of Surgery in Paris -

Membre associé étranger – occasion to hold a plenary conference related to postcaustic pharyngo-esophageal stenoses and total reconstruction of the pharynx through ileo-colon transposition. Two years later, in 2001, he was again invited by Prof. J. Moreaux to hold a conference at the National Academy of Surgery in Paris this time with the theme - Surgical management of postcaustic gastric stenoses [16].

In 2013, he writes a last successful chapter related to the Reconstruction of the oesophagus by interposition of the colon in Vijay P. Khatri's Atlas of Advanced Operative Surgery, whom he met upon his arrival in Bucharest invited by Prof. Dr. Irinel Popescu within the Romanian Academy of Medical Sciences.

He left behind an important statistic in oesophageal surgery, from which he stood out for several elements recognized worldwide:

- 358 esophagocoloplasty – the largest series in the world performed by a single surgeon – chemical burns in the pharynx, esophagus and stomach;

- The original classification of the vascularization of the left colon in view of esophagoplasty (J. Chir. Paris, 1997, 113);

- Original esophagoplasty procedures – Super long colonic graft; Continuous colic loop; Preservation of distal marginal artery; Primary ligation of colic arteries; Rectocoloesophagoplasty; ileocecoesophagoplasty with long ileal loop, ileoesophagoplasty (personal arrangements, "box resection"); Original classification of pharyngoplasty; double pharyngoplasty en Y, "vera and spuria"; transmandibular pharyngoplasty, etc.;

- 145 pharyngeal anastomoses and 81 pharyngeal reconstructions for benign caustic lesions, with colon, ileum, jejunum, skin and musculocutaneous flaps [17];

- 99 total or partial resections of oropharynx and hypopharynx followed by various reconstructions;

- 28 "mediastinal" tracheostomies (actually low cervical tracheostomies).

He published 236 articles in Romania, 45 abroad in magazines with international ISI recognition, wrote 13 books published in the country and abroad, and held 18 conferences as a visiting professor in Japan, Italy, Israel, Austria, France, Great Britain, USA, Brazil, made 128 films with surgical techniques even winning an award at the Badajoz Film Festival, Spain, 1990.

He was a man with an impressive culture, tough but fair, an exceptional surgeon with national, but above all, international recognition.

Retired too soon from the hospital, from all the materials collected throughout his career he creates his masterpiece, Atlas of Pharyngeal Reconstruction, a 658-page book in large format, colour with 1249 intraoperative pictures and various sketches, reviewed by Paul Orsoni (Paris), Alfredo Cuschieri (University of Dundee, UK), Tom R. DeMeester (Los Angeles) and Watts R. Webb (Tulane University Medical Center, New Orleans, Louisiana) [18]. He died on 02.03.2018.

Disclosure: authors have nothing to disclose

References

1. S. Constantinoiu – Istoricul chirurgiei esofagiene în S. Constantinoiu, I. Cordoș, Constantin Ciuce, V. Scripcariu *Tratat de patologie și chirurgie esofagiană*, Edit. Academiei Române, București, 2017, p. 19–20, ISBN 978-973-27-2782-9.
2. S. Constantinoiu – Introducere în S. Constantinoiu, I. Cordoș, Constantin Ciuce, V. Scripcariu *Tratat de patologie și chirurgie esofagiană*, Edit. Academiei Române, București, 2017, p. 25, ISBN 978-973-27-2782-9.
3. S. Constantinoiu (sub redacția) – Istoricul chirurgiei, Patologia chirurgicală a esofagului – Manual pentru studenți – Patologie chirurgicală, Edit. Univ. „Carol Davila”, București, 2000, p. 1–25.
4. S. Constantinoiu – Istoricul chirurgiei mondiale și românești – în Manual de chirurgie pentru studenți, sub redacția Eugen Brătucu, Editura Univ. „Carol Davila”, București 2009, p. 1–25.
5. N. Angelescu, S. Constantinoiu – Scurt istoric al chirurgiei. Chirurgia mondială în *Tratat de patologie chirurgicală – sub redacția prof. dr. N. Angelescu*, vol. I, Ed. Medicală, București, 2001, p. 21–29.
6. Wilkins E. W. Jr – „The Historical Evolution of Esophageal Surgery” în „*Esophageal Surgery*, Second Edition, sub red. F. Griffith Pearson, J.D. Cooper, J. Deslauries, R.J. Ginsberg, C.A. Hiebert, G. A. Patterson, H. S. Urschell jr., Ed. Churchill Livingstone – New York, Edinburgh, London, Philadelphia, 2002, p. 1–7.
7. D. V. Predescu – Colo-esofagoplastia în stenozele esofagiene – Teză de doctorat – Editura Univ. „Carol Davila”, București, 2011.
8. Dan Setlacec – *Medicina românească – medicină europeană*, vol. I și II, Ed. Medicală, București, 1995.
9. M. Diaconescu, gen. brigadă (r.) „Oameni și fapte din istoria medicinei militare românești”, vol. I, Ed. ProTransilvania, București, 2005.
10. V. Sârbu – Pagini din istoria chirurgiei românești, Ed. Academiei Române, 2002, p. 173.
11. I. Popescu – Amza Jianu (1881–1962) – virtuoz al chirurgiei și întemeietor de școală, *Chirurgia*(2006) 101: 113–117, Nr. 2, Martie–Aprilie.
12. Sabău D., G. Smarandache, D. Bratu, M. Antonescu, Anca Dumitra, Al. Sabău, Esophageal Endoprosthesis through Laparoscopic Insertion. 6th International Gastric Cancer Congress, 4–7 May 2005, Yokohama.
13. S. Constantin Ciuce – Reconstrucția faringelui și a esofagului cervical prin transfer liber de jejun în *Tratat de patologie și chirurgie esofagiană*, Edit. Academiei Române, București, 2017, p. 601–608, ISBN 978-973-27-2782-9
14. Corneliu Dragomirescu (sub red.) *Chirurgia laparoscopică – Actualități și perspective*, seria *Medicină practică*, Ed. Tehnică, București, 1996.
15. Ciprian Tănăsescu, *Chirurgia* (2018) 113: 274–276, No. 2, March–April.
16. Z. Popovici – Aspecte particulare ale colo-esofagoplastiei în stenozele esofagiene post-caustice, *Chirurgia*, București, 1976, vol. XXV, nov.–dec., p. 409–416.
17. Z. Popovici – Results of pharyngoesophageal reconstruction in extensive corrosive strictures. The rationale of total reconstruction of the

pharynx by ileal and colic interposition, Chirurgie, Volume 123, Issue 6, December 1998, p. 552–559.

18. Z. Popovici – Atlas de reconstrucție a faringelui, Ed. Honterus, Sibiu, 2010.